
Meridian 1

Network ACD

Description and operation

Document Number: 553-3671-120

Document Release: Standard 8.00

Date: October 1997

© 1989, 1997

All rights reserved

Printed in Canada

Information is subject to change without notice. Northern Telecom reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant. This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC rules, and the radio interference regulations of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

SL-1 and Meridian 1 are trademarks of Northern Telecom.

Revision history

October 1997

Standard, issue 8.00. This is the X11 Release 23 standard version of this document.

December 1995

Standard, release 7.00. Reissued to include editorial changes. Revision bars are not used.

July 1995

Standard, release 6.00. This document is issued to include X11 release 21 changes. Change bars are used to indicate the changes.

December 1994

Standard, release 5.00. Reissued to include editorial changes and indexing. Due to the extent of the changes, revision bars are not used, except for some minor technical changes.

August 1, 1993

Standard, release 4.00. Reissued to include updates and new information. Due to the extent of changes, revision bars are omitted.

December 31, 1992

Standard, release 3.00. Reissued to include updates for X11 release 18. Changes are noted with revision bars in the margins.

December 1, 1991

Standard, release 2.00. Reissued to include technical content updates. Service change and system error message information has been removed from this document. Refer to the *X11 input/output guide* for this information. Due to the extent of changes, revision bars are omitted.

December 20, 1989

Standard, release 1.00. Reissued for compliance with Northern Telecom standard 164.0 and to include updates for X11 release 15.

Contents

General information	1
Enhanced Overflow	4
Network ACD overview	5
Environment	5
NACD on a 911 application	5
Call Processing	5
Call Request queue	6
Engineering	6
Management reports	7
Collect Call Blocking (Brazil)	7
Meridian Link Predictive Dialing Support	17
Meridian 911	34
ISDN overview	58
Primary Rate Interface (PRI)	58
D-channel	59
ISDN Signaling Link (ISL)	59
Supporting documents	59
ACD	59
ISDN	60
System support documents	60
Functional description	61
Network environment	61
Routing Tables	62
Cascade routing	66
Dynamic status change	68

Incoming calls	69
Call Requests	69
Canceling Call Requests	70
Queue priorities	71
Call presentation	73
Interactions	73
ACD interactions	74
Feature interactions	81
NACD engineering	83
Dependencies	83
Package dependencies	83
Feature limitations	84
Feature requirements	85
ESN requirements	85
Recommendations	88
Customer configurations	88
NACD engineering guidelines	90
Target table definition	91
Real-time impact	91
Noncoincidence busy hour (time zone difference)	91
ACD DN load at each node (spare capacity)	92
Agent group size in an ACD DN	92
Number of hops	93
Parameter definition	93
Flow Control (Overlay 23: FCTH)	93
Call Request Queue Size (Overlay 23: CRQS)	94
Resend Timer (Overlay 23: RSND)	94
Reserve Agent Timer (Overlay 23: RAGT)	94
Oldest Call in Network (Overlay 23: OCN)	95
ACD agents requirement at each node	95
Trunking requirements at the Source and Target nodes	95
Duration Timer (Overlay 23: DURT)	96
Network requirements	97
Signaling link requirements between Source and Target nodes ...	97

Overflow traffic estimation	98
Average CCS loading per agent at each ACD DN	98
Call register requirements	99
Designing the NACD Routing Table	101
ACD agent group size (P1)	102
Average agent load at each target ACD DN (P2)	102
Number of hops (P3)	103
Noncoincidence busy hour and time zone difference (P4)	104
Ranking of Target nodes on NACD Routing Table	104
Timer value in NACD Routing Table	105
Incremental impact engineering	109
Trunking requirement	109
Trunk traffic to source ACD DN	110
Overflow traffic from source ACD DN	110
Calls handled by the Source node agents	110
Incremental traffic to each Target node	111
Real-time requirement	112
Call register requirement	113
Implementation	115
Operations	117
Agent telephone displays	117
Management reports	117
Administration and operational measurements	118
Service change	118
Traffic measurements	120

